

METHOD FOR EXTRACTING BISBENZYLISOQUINOLINES; OBTAINING PURIFIED
TETRANDRINE FROM THE ROOTS OF STEPHANIA TETRANDRA

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Abstract:

A method for obtaining purified bisbenzylisoquinoline alkaloids from the roots of Stephania Tetrandra involves obtaining, from the roots of

Stephania Tetrandra, a precipitate comprising tetrandrine, fangchinoline and compounds which constitute impurities, contacting the precipitate with chloroform to form a chloroform solution in which tetrandrine and fangchinoline is dissolved, separating the chloroform solution containing dissolved tetrandrine and fangchinoline from undissolved impurities, removing chloroform from the chloroform solution to obtain a chloroform extract solid having an enriched tetrandrine and fangchinoline content relative to the precipitate, contacting the chloroform extract solid with cool benzene to form a combination comprising undissolved fangchinoline and a benzene solution in which tetrandrine is dissolved, separating the benzene solution from the undissolved fangchinoline from the first solid, removing benzene from the first benzene solution to form a benzene extract which comprises tetrandrine, and subjecting the benzene extract which comprises tetrandrine and subjecting the undissolved fangchinoline to further operations to obtain purified tetrandrine and fangchinoline, separately. The method has the advantages of being able to achieve higher yields of tetrandrine as well as fangchinoline while using lower amounts of benzene, and does not require the use of chromatographic separation columns.

Exemplary Claim:

D R A W I N G

1. A method for obtaining purified tetrandrine from the roots of Stephania Tetrandra, comprising: a. obtaining, from roots of Stephania Tetrandra, an extract comprising tetrandrine, fangchinoline and compounds which constitute impurities; b. contacting the extract with chloroform to form a chloroform solution in which tetrandrine and fangchinoline are dissolved; c. separating the chloroform solution containing dissolved tetrandrine and fangchinoline from undissolved impurities; d. removing chloroform from the chloroform solution to obtain a chloroform extract solid having an enriched tetrandrine and fangchinoline content relative to the extract; e. contacting the chloroform extract solid with benzene, said benzene being free of chloroform or other solvent for fanghinoline, to form a combination comprising undissolved fangchinoline, and a benzene solution in which tetrandrine is dissolved; f. separating the benzene solution from the undissolved fangchinoline; and g. removing benzene from the benzene solution to form a benzene extract which comprises tetrandrine.